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traffic state based on an amount of received data. When the transmission line quality or traffic state is unsatisfactory, the base station determines a communication system to be a Reserved Idle Signal Multiple Access (R-ISMA) system; otherwise, the system is determined to be an Idle Signal Multiple Access (ISMA) system. A terminal references the system selected by the base station and determines a communication system based on a length of a data packet to be transmitted. When the packet length is small, the terminal adopts R-ISMA; otherwise, the terminal adopts ISMA.--

IN THE CLAIMS

Please amend claims 1-25 by rewriting same to read as follows:

--1. (Amended) A base station apparatus for performing wireless communication with one of a plurality of terminal apparatuses using a contention-based communication system, comprising:

idle signal transmission means for transmitting an idle signal notifying said terminal apparatus that a communication channel is available; and

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system selection means for choosing between a first contention-based communication system in which each of said plurality of terminal apparatuses transmits a data packet according to said idle signal without transmitting a control packet and a second contention-based communication system in

which each of said plurality of terminal apparatuses transmits a reservation packet according to said idle signal to ensure a communication channel and then transmits said data packet, wherein

said system selection means chooses between said first contention-based communication system and said second contention-based communication system according to a communication state; and

said idle signal transmission means transmits said idle signal including system specification information for specifying said communication system selected by said selection means to said terminal apparatus.

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--2. (Amended) The base station apparatus according to claim 1, wherein said system selection means chooses said communication system according to a transmission line quality.

--3. (Amended) The base station apparatus according to claim 1, wherein said system selection means chooses said communication system according to a traffic state on a transmission line.

--4. (Amended) The base station apparatus according to claim 1, wherein

said system selection means performs one of choosing between said first contention-based communication system and said second contention-based communication system and leaving

no communication system selected according to said communication state; and

said idle signal transmission means transmits said idle signal including system specification information specifying one of said communication system selected by said selection means and that no communication system has been selected to said terminal apparatus.

--5. (Amended) The base station apparatus according to claim 1, wherein when said reservation packet is received from said terminal apparatus polling signal transmission means are provided for transmitting a polling signal including terminal identification information for specifying said terminal apparatus to each of said plurality of terminal apparatuses.

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--6. (Amended) A terminal apparatus for performing wireless communication with a base station apparatus using a contention-based communication system, comprising:

idle signal reception means for receiving an idle signal notifying that a communication channel transmitted from said base station apparatus is available;

system determination means for determining a data packet communication system to be one of a first contention-based communication system that transmits a data packet to said base station apparatus according to said idle signal without transmitting a control packet and a second contention-based communication system that transmits a reservation packet

according to said idle signal to ensure a communication channel and then transmits said data packet to said base station apparatus;

transmission means for transmitting said data packet to said base station apparatus according to said reception of said idle signal when said system determination means determines said first contention-based communication system and for transmitting to said base station apparatus said reservation packet including terminal identification information according to said reception of said idle signal when said system determination means determines said second contention-based communication system, wherein

said idle signal includes system selection information for choosing between said first contention-based communication system and said second contention-based communication system; and

said system determination means determines said communication system according to said system selection information and a communication state.

--7. (Amended) The terminal apparatus according to claim 6, wherein said system determination means selects said communication system according to said system selection information and a length of said data packet to be transmitted.

--8. (Amended) The terminal apparatus according to claim

6, wherein said system determination means selects said communication system according to said system selection information and a number of retransmissions for said data packet to be transmitted.

--9. (Amended) The terminal apparatus according to claim 6, wherein said transmission means transmits said data packet according to a reception of a polling signal when said polling signal received after said reservation packet transmission contains terminal specification information.

--10. (Amended) A wireless communication system for performing wireless communication between a base station apparatus and one of a plurality of terminal apparatuses using a contention-based communication system,

said base station apparatus comprising:

idle signal transmission means for transmitting an idle signal notifying said terminal apparatus of an availability of a communication channel;

system selection means for choosing between a first contention-based communication system in which each of said plurality of terminal apparatuses transmits a data packet according to said idle signal without transmitting a control packet and a second contention-based communication system in which each of said plurality of terminal apparatuses transmits a reservation packet according to said idle signal to ensure a communication channel and then transmits said data packet,

wherein

said system selection means chooses between said first contention-based communication system and said second contention-based communication system according to a communication state; and

said idle signal transmission means transmits said idle signal including system specification information for specifying said communication system selected by said selection means to each of said plurality of terminal apparatuses; and

each of said plurality of terminal apparatuses comprising:

idle signal reception means for reception of said idle signal;

system determination means for determining said communication system to be one of said first contention-based communication system and said second contention-based communication system; and

transmission means for transmitting said data packet to said base station apparatus according to said reception of said idle signal when said system determination means determines said first contention-based communication system and transmitting said reservation packet including terminal identification information to said base station apparatus according to said reception of said idle signal when said system determination means determines said second contention-based communication system, wherein

said system determination means determines said communication system according to said system selection information and a communication state.

--11. (Amended) The wireless communication system according to claim 10, wherein said system selection means of said base station apparatus selects said communication system according to a transmission line quality.

--12. (Amended) The wireless communication system according to claim 10, wherein said system selection means of said base station apparatus selects said communication system according to a traffic state on a transmission line.

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--13. (Amended) The wireless communication system according to claim 10, wherein said system determination means of said terminal apparatus selects said communication system according to said system selection information and a length of said data packet to be transmitted.

--14. (Amended) The wireless communication system according to claim 10, wherein said system determination means of said terminal apparatus selects said communication system according to said system selection information and a number of retransmissions for said data packet to be transmitted.

--15. (Amended) The wireless communication system

according to claim 10, wherein

said system selection means of said base station apparatus performs one of choosing between said first contention-based communication system and said second contention-based communication system and leaving no communication system selected according to said communication state; and

said idle signal transmission means of said base station apparatus transmits said idle signal including system specification information specifying one of said communication system selected by said selection means and that no communication system has been selected.

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--16. (Amended) The wireless communication system according to claim 10, wherein when said reservation packet is received from one of said plurality of terminal apparatuses, said base station apparatus utilizes polling signal transmission means to transmit to each of said plurality of terminal apparatuses a polling signal including terminal identification information specifying said reservation packet-transmitting terminal apparatus.

--17. (Amended) The wireless communication system according to claim 16, wherein said transmission means of said terminal apparatus transmits said data packet according to reception of said polling signal when said polling signal received after said reservation packet transmission contains

terminal specification information.

--18. (Amended) A wireless communication method implemented between a base station apparatus and a plurality of terminal apparatuses using a contention-based communication system, comprising the steps of:

choosing, at said base station according to a communication state, between a first contention-based communication system in which each of said plurality of terminal apparatuses transmits a data packet according to an idle signal without transmitting a control packet and a second contention-based communication system in which each of said plurality of terminal apparatuses transmits a reservation packet according to said idle signal to ensure a communication channel and then transmits said data packet;

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transmitting said idle signal including system specification information specifying said selected communication system notifying one of said plurality of terminal apparatuses of an availability of a communication channel from said base station;

determining, at one of said plurality of terminal apparatuses, a data packet communication system to be a first contention-based communication system or a second contention-based communication system according to terminal identification information included in said idle signal and said communication state; and

transmitting said data packet to said base station

apparatus according to a reception of said idle signal when said first contention-based communication system is determined and transmitting said reservation packet including said terminal identification information to said base station apparatus according to said reception of said idle signal when said second contention-based communication system is determined.

--19. (Amended) The wireless communication method according to claim 18, wherein said base station apparatus selects said communication system according to a transmission line quality.

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--20. (Amended) The wireless communication method according to claim 18, wherein said base station apparatus selects said communication system according to a traffic state of a transmission line.

--21. (Amended) The wireless communication method according to claim 18, wherein said terminal apparatus selects said communication system according to said system selection information and a length of said data packet to be transmitted.

--22. (Amended) The wireless communication method according to claim 18, wherein said terminal apparatus selects said communication system according to said system selection

information and a number of retransmissions for said data packet to be transmitted.

--23. (Amended) The wireless communication method according to claim 18, wherein said base station apparatus performs one of choosing between said first contention-based communication system and said second contention-based communication system and leaving no communication system selected according to said communication state; and

said base station apparatus transmits said idle signal including system specification information specifying one of said selected communication system and that no communication system has been selected to said terminal apparatus.

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--24. (Amended) The wireless communication method according to claim 18, wherein when said reservation packet is received from one of said plurality of terminal apparatuses said base station apparatus transmits to each of said plurality of terminal apparatuses a polling signal including terminal identification information for specifying said terminal apparatus.

--25. (Amended) The wireless communication method according to claim 24, wherein said terminal apparatus transmits said data packet according to a reception of said polling signal when said polling signal received after said reservation packet transmission contains terminal